M E M O R A N D U M

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DATE: October 8, 2015

SUBJECT: Operational Position Statement for October 6 to October 12, 2015

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance (2008 LORS). The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system-wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD Operational Planning internet page.

This Position Statement is for the period from September 29 through October 5, 2015. At the time of this recommendation, the Lake Okeechobee stage is in the Low Sub-band. The SFWMD recommendation to the USACE is to follow the release guidance of 2008 LORS, which currently suggests that releases of up to 3,000 cfs measured at S-79 and up to 1,170 measured at S-80 may be made. A pulse type pattern is less harmful and suggested daily discharge rates for multi-day pulses are provided in Table 1 at the end of this memorandum.

The most recent Climate Prediction Center (CPC) outlook for Central and South Florida indicates equal chances (EC) of below, normal and above-normal precipitation for the month of October and increased chances of above normal rainfall for the three-month window October to December. The CPC rainfall outlook for the 2015-2016 dry season predicts a substantial increase in the likelihood for above-normal precipitation. SFWMD rainfall for the month of September was above average. Rainfall for the next week is forecast to be below average.

Over the 7-day period from September 29 to October 5, 2015, a volume of about 20,100 ac-ft was delivered from the lake to STA-1E, STA 1-W, STA-2, STA-3/4 and the A-1 FEB. Discharges from the Lake to tide via C-10A, L-8 and C-51 canals amounted 2,300 ac-ft.

2008 LORS Release Guidance (Part C): The Lake Okeechobee stage is currently within the Low Sub-band and Part C of the 2008 LORS release guidance recommends “Up to Maximum Practicable to the WCAs if desirable or with minimum Everglades Impacts”.

Consistent with the LORS release guidance, the USACE is requesting the SFWMD to implement maximum practicable Lake Okeechobee regulatory releases to the WCAs. Runoff in the EAA has subsided and the District is maximizing the treatment of lake regulatory releases through the STAs.

District Everglades scientists have indicated that additional releases south would have minimal impact to the WCAs. A small portion of the current discharges from STA-1E/1W into WCA-1 are

being passed to WCA-2A through S-10D. Discharges from STA-2 and STA 3/4 into WCA-2 are being delivered to WCA-3A through the S-11 structures. STA 3/4 discharges are being sent to central WCA-3A. NE WCA-3A is now under water and continued discharges through S-150 will help maintain current depths.

S-333, S-12C and S-12D have been opened in response to ERTP and the SRS Rainfall Plan calling for releases from WCA-3A to ENP. Increased releases into the ENP are being also recommended by District Everglades scientists.

2008 LORS Release Guidance (Part D): The Lake Okeechobee stage is currently within the Low Sub-band and Part C of the 2008 LORS release guidance is "S-79 up to 3,000 cfs and S-80 up to 1,170 cfs". Consistent with the 2007 SEIS analysis of the selected plan and the 2008 Water Control Plan language on page 7-15, when lake stage is in the lower third of the Low sub-band, releases should be limited to 2,000 cfs at S-79 and 730 cfs at S-80.

No regulatory releases from Lake Okeechobee to the St. Lucie and Caloosahatchee Estuaries have occurred since June this year. Over the past week, flows averaging around 400 cfs entered the St. Lucie Estuary through S-80, with no contributions from the lake. Flow at S-79 averaged approximately 1,600 cfs. Some releases from the lake through S-77 were necessary to maintain optimal canal stages.

SFWMD lake scientists report that from an ecological point of view the current stage ascension rate is close to the recommended value. The reduction in this ascension rate may result in less negative impacts on apple snail recruitment due to drowning egg clutches. Lake stage is at the top of the optimal range for this time of the year. As far as possible, a steady increase in stage not to exceed 0.5 feet per month throughout the remainder of the wet season is recommended.

Currently, there are no ecological benefits associated with additional releases from Lake Okeechobee to the estuaries. In the St. Lucie Estuary, salinity recovered into the lower portion of the good range for adult oysters. In the Caloosahatchee Estuary, salinity continued to be in the good range for adult oysters at Shell Point and Sanibel, but remained in the poor range at Cape Coral. Salinities were also in the good range for tape grass in the upper-Caloosahatchee Estuary.

Despite some decrease in salinities, conditions in Florida Bay continue to be hypersaline with salinities 5 to 21 psu above average for this time of the year. The 30-day moving average salinity at the Taylor Slough (MFL sentinel) site decreased to 10.9 psu, well below the 30 psu MFL criterion. High salinities are a result of below average wet season rainfall for the Everglades and the southern portion of the District, high evaporation, and exceptionally low freshwater inflows into the Bay. Fresh water inflows decreased and reversed flow direction. Additional rainfall amounts will increase fresh flows and reduce salinities in Florida Bay. Also as of September 22, the WCA-3A rainfall-based management plan is calling for releases into the ENP.

SFWMD Lake Okeechobee Adaptive Protocol (AP) Release Guidance

This week the SFWMD is not applying the Lake Okeechobee Adaptive Protocol release guidance flowchart since the Lake Okeechobee stage is above the Base-flow Sub-band of the 2008 LORS. The Adaptive Protocols process is documented in the District publication Final Adaptive Protocols for Lake Okeechobee Operations (September 16th, 2010).
The SFWMD governing board directed staff to use the SFWMD's Lake Okeechobee Adaptive Protocols (AP) release guidance as the basis for S-77 release recommendations to the USACE when the lake stage is within or below the Base Flow Sub-band.

For additional information pertaining to operations history and past recommendations, refer to the archives of LORS-2008 Release Guidance outcomes and operational position statements at www.sfwmd.gov under the Operational Planning topic.

Table 1. Schedules for 7-day pulses at S-80 and S-79

	7-day pulses at S-80							
Day	200 cfs	300 cfs	500 cfs	650 cfs	730 cfs	950 cfs	1100 cfs	1170 cfs
1	200	300	500	650	800	950	1200	1290
2	600	700	900	1100	1200	1400	1600	1800
3	300	500	800	900	1000	1200	1400	1500
4	200	300	600	800	800	1100	1200	1300
5	100	200	400	600	600	900	1000	1000
6	0	100	300	400	500	700	800	800
7	0	0	0	100	210	400	500	500
	7-day pulses at S-79							
Day	1500 cfs	1700 cfs	2000 cfs	2300 cfs	2500 cfs	2600 cfs	2900 cfs	3000 cfs
1	2000	2200	2500	2800	3000	3100	3400	3500
2	2400	2600	3100	3500	3800	3900	4200	4300
3	2100	2300	2600	3000	3300	3400	3700	3800
4	1400	1600	1900	2200	2400	2500	2800	2900
5	1200	1400	1700	2000	2200	2300	2600	2700
6	900	1100	1400	1700	1800	2000	2300	2400
7	500	700	800	900	1000	1000	1300	1400